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2b. DECLASSIFICATION/DOWNGRADING SCHEDULE

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6b. OFFICE SYMBOL
(if applicable)

NOSC

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In-house

11. TITLE (include Security Classification)

SELECTED PATENTS AVAILABLE FOR LICENSE FROM THE NAVAL OCEAN SYSTEMS CENTER

12. PERSONAL AUTHOR(S)

K. Campbell

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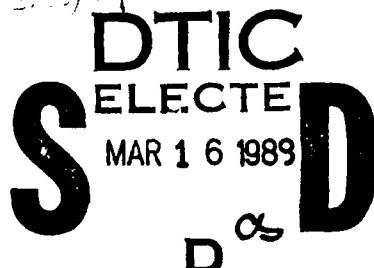
18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)

patents

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

> Descriptions of patents include patent numbers and some illustrations. Viewgraph presentation.

K. Campbell



Presented at the 46th Government Lab/Industry Technology Transfer Conference, Atlanta, GA, 6 - 7 December 1988.

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT

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21. ABSTRACT SECURITY CLASSIFICATION

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22a. NAME OF RESPONSIBLE PERSON

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22b. TELEPHONE (include Area Code)

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22c. OFFICE SYMBOL

Code 014

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KC
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**Selected Patents Available
for License from the
Naval Ocean Systems Center**

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Outline

- NOSC
- Selected patents
- Other available patents
- Points of contact

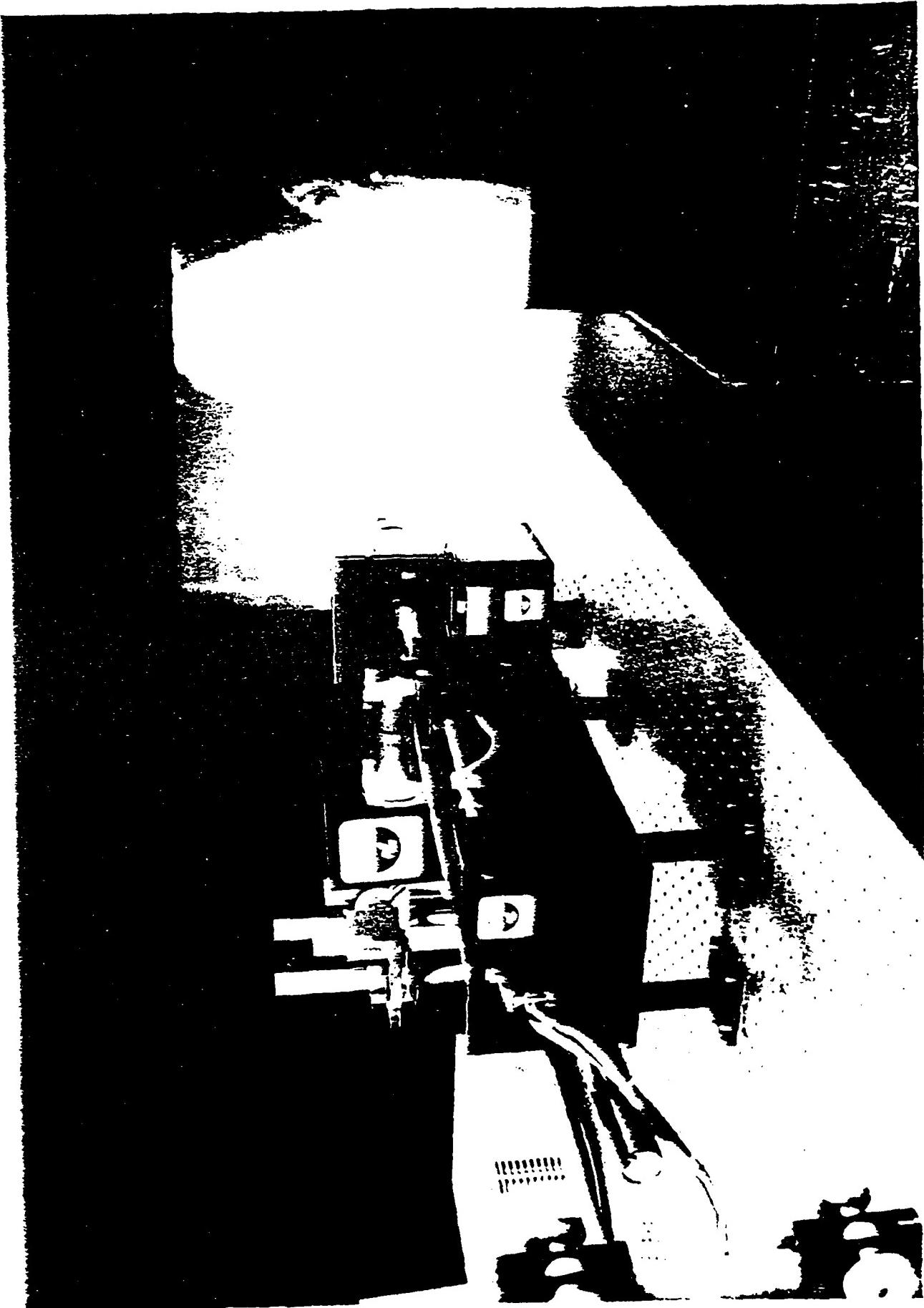
NOSC

**Real-time Ultrahigh Resolution Image
Projection Display Using Laser-addressed
Liquid Crystal Light Valve
(U.S. Patent 4,611,245)**

**Inventor: John Trias
(619) 553-3588**

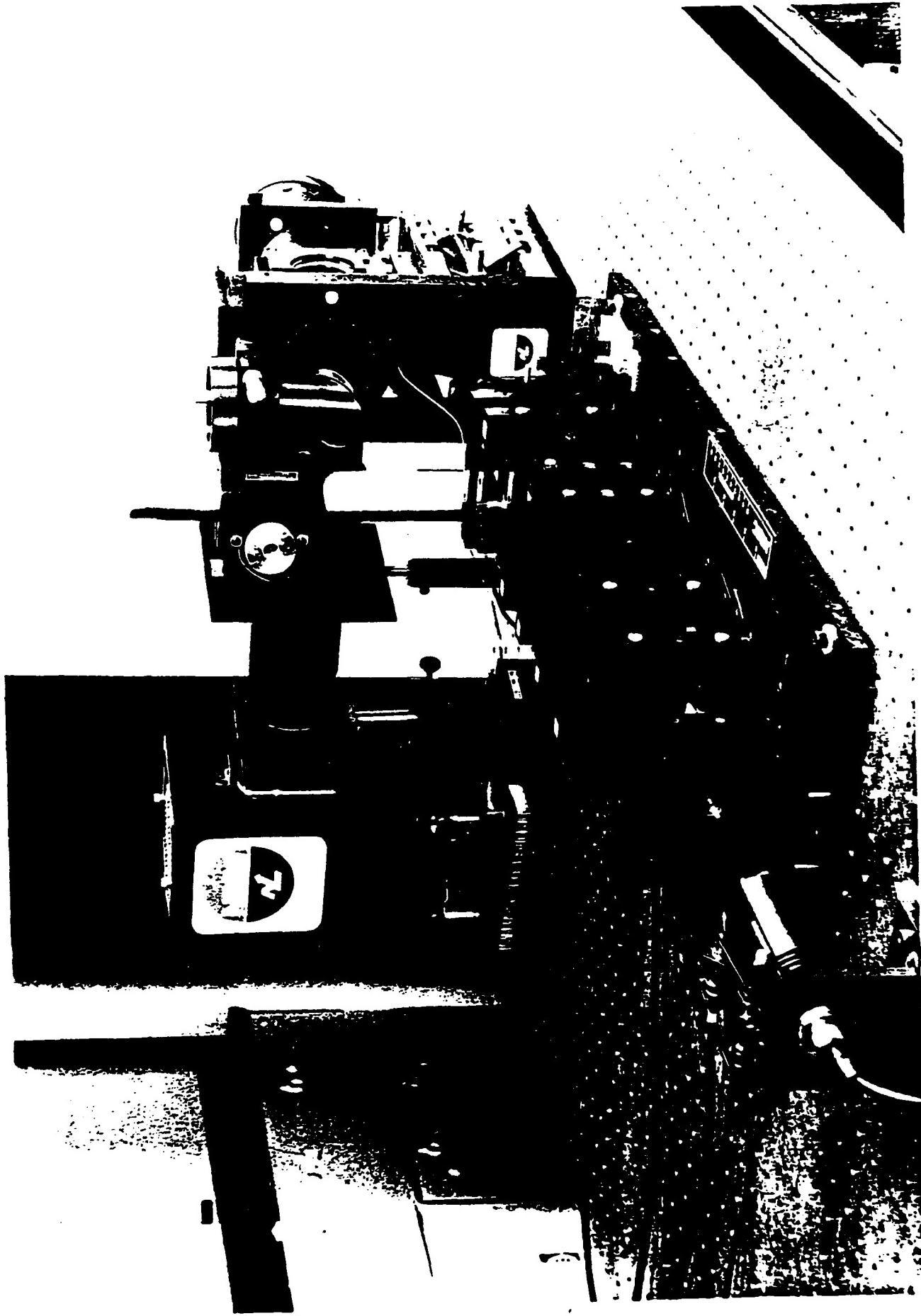
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Laser Light Valve Display



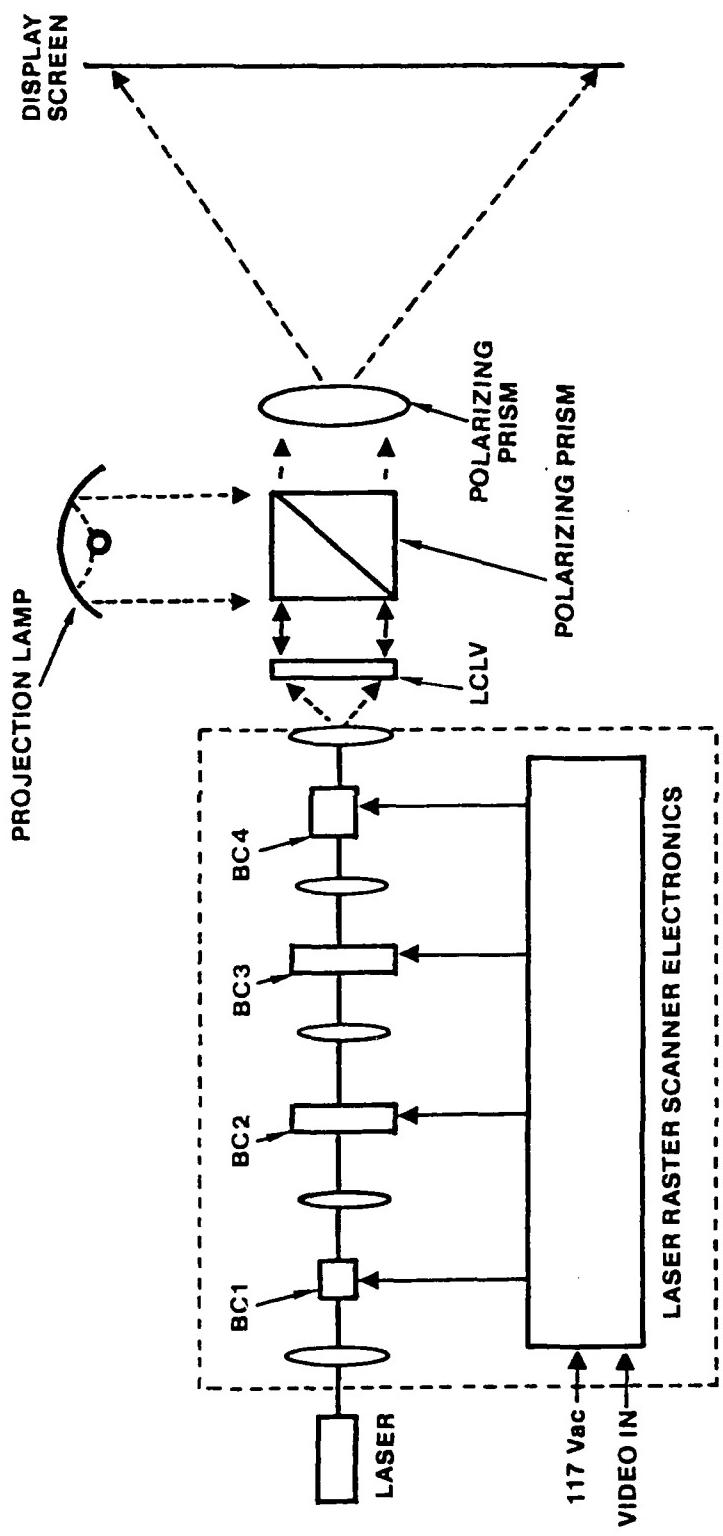
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Laser Light Valve Display



NOSC

Laser Light Valve Display



BC = Bragg Cell

NOSC 2

Stage of Development

Prototype 525-line laser light valve monochrome projector has been built and demonstrated in the laboratory.
Design of a color projector is in progress

Applications

Command centers, tactical operation rooms, simulation displays, teleconferencing, entertainment displays

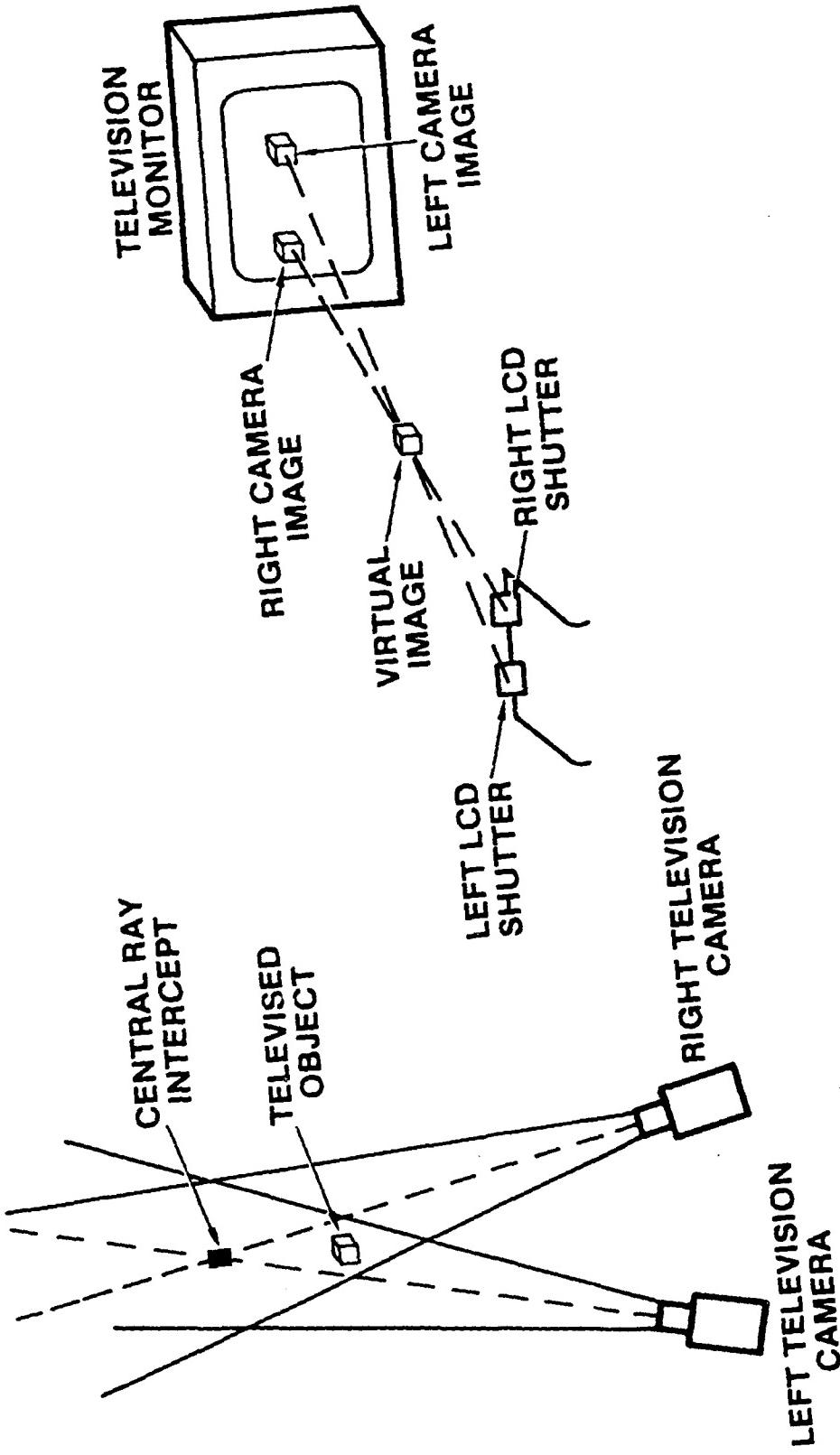
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**Liquid Crystal Stereoscopic Viewer
(U.S. Patent 4,021,846)**

**Inventor: John Roese
(619) 553-2052**

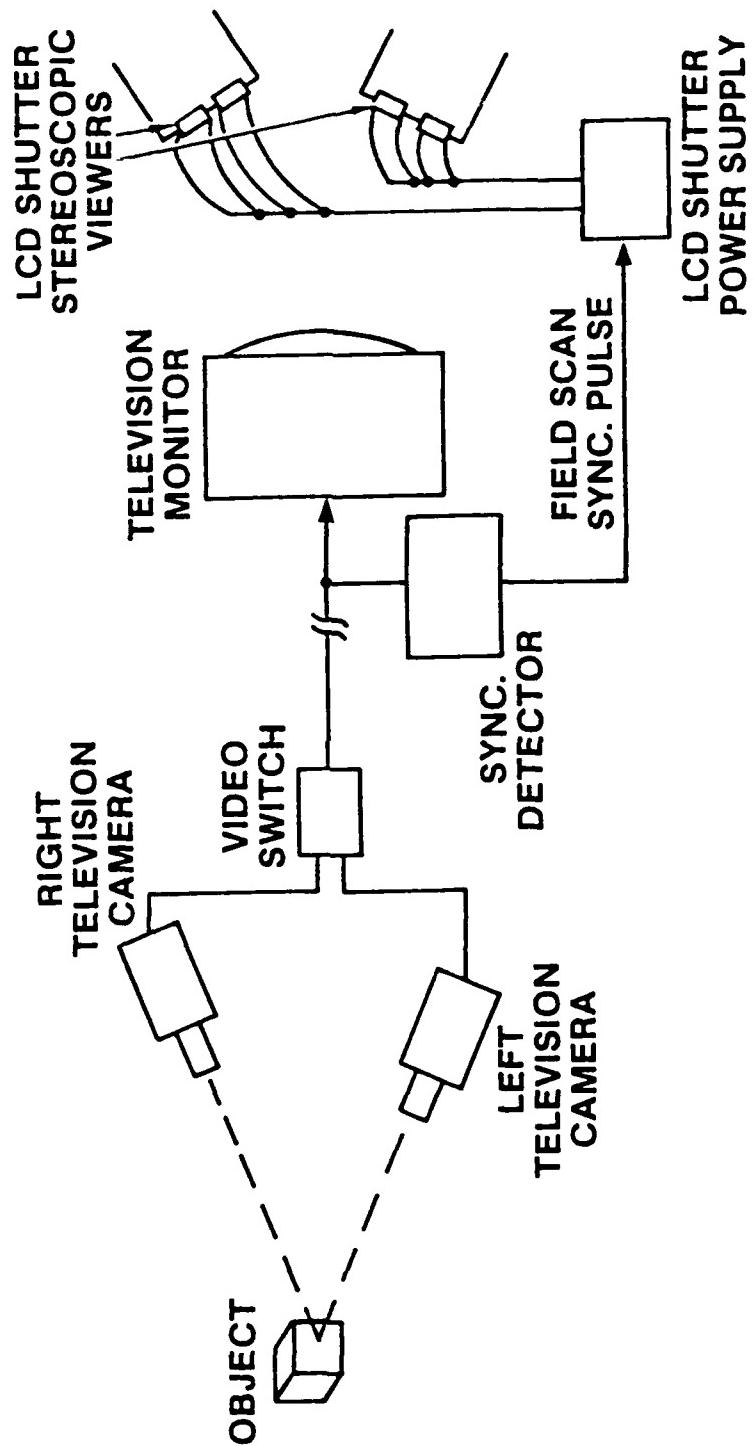
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Stereoscopic Display Geometry



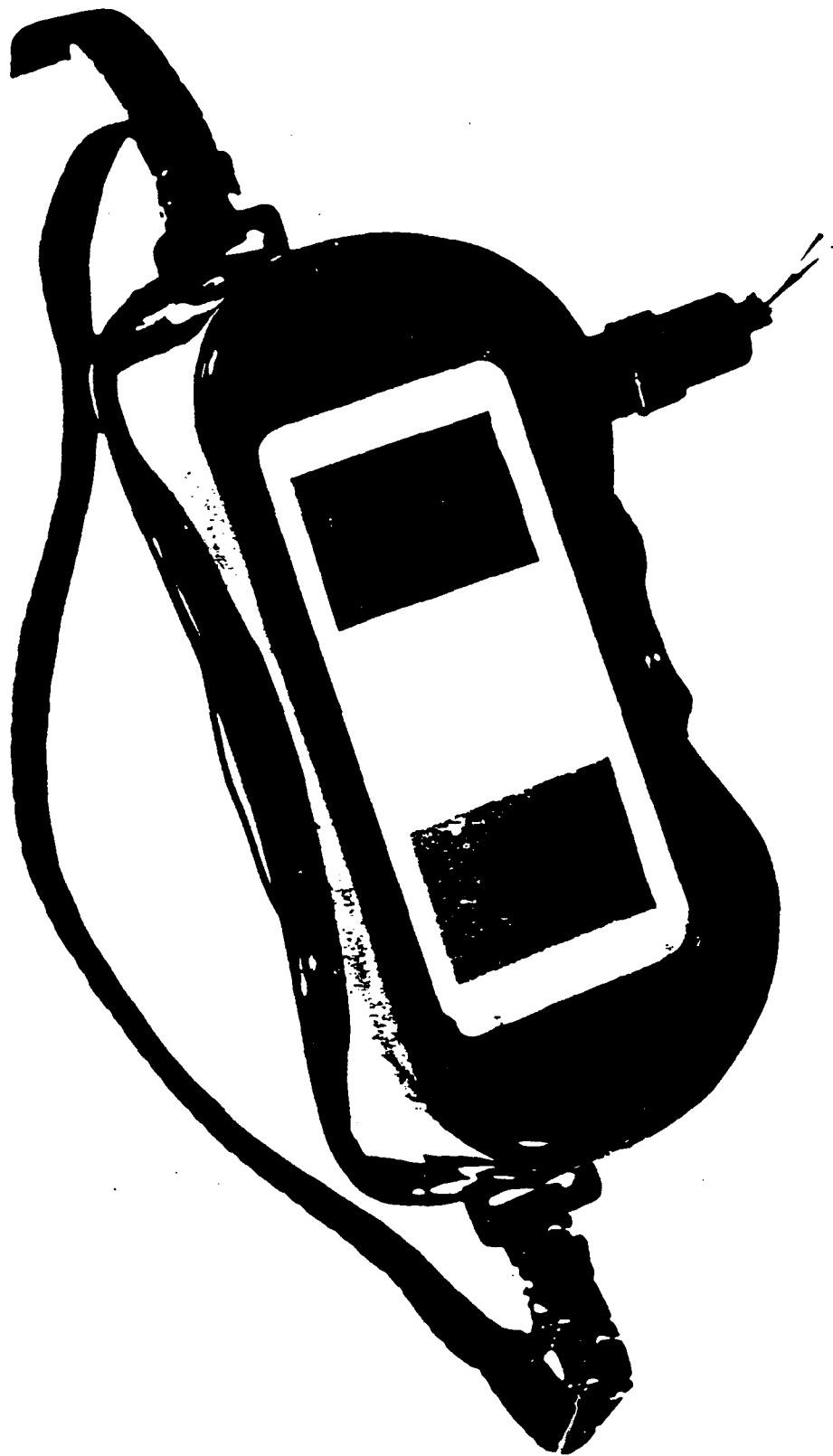
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Liquid Crystal Stereoscopic Television System



NASC

Liquid Crystal
Stereoscopic Viewing



NOSC 

Features

- Employs low cost, low power LCD shutters
- LCD shutters suitable for mounting in lightweight eyeglass/goggle housings
- Provides full color, full CRT screen stereoscopic images
- No viewer head orientation restrictions
- Compatible with NTSC, PAL, HDTV, etc. video systems and 30Hz/60Hz/120Hz computer-driven display

Representative Applications

- CAD/CAM
- Molecular Modeling
- X-ray, CAT Scan, NMR Imaging
- Air Traffic Control
- Remote Manipulator Control (handling radioactive/high temperature materials)
- Architectural Visualizations
- Video Games

NOSC

**Method of Wavelength Multiplexing in
Fused Single-mode Fiber Couplers
(U.S. Patent 4,557,553)**

**Automated and Computer-controlled
Precision Method of Fused Elongated
Optical Fiber Coupler Fabrication
(U.S. Patent 4,763,372)**

**Inventor: Matt McLandrich
(619) 553-1066**

Stage of Development

The fiber optic couplers have been reduced to practice and are commercially available. Automated precision fabrication has been reduced to practice

Applications

This technology is applicable to fiber optic transmission systems employing WDM or duplexing of optical signals at all commercially available wavelengths

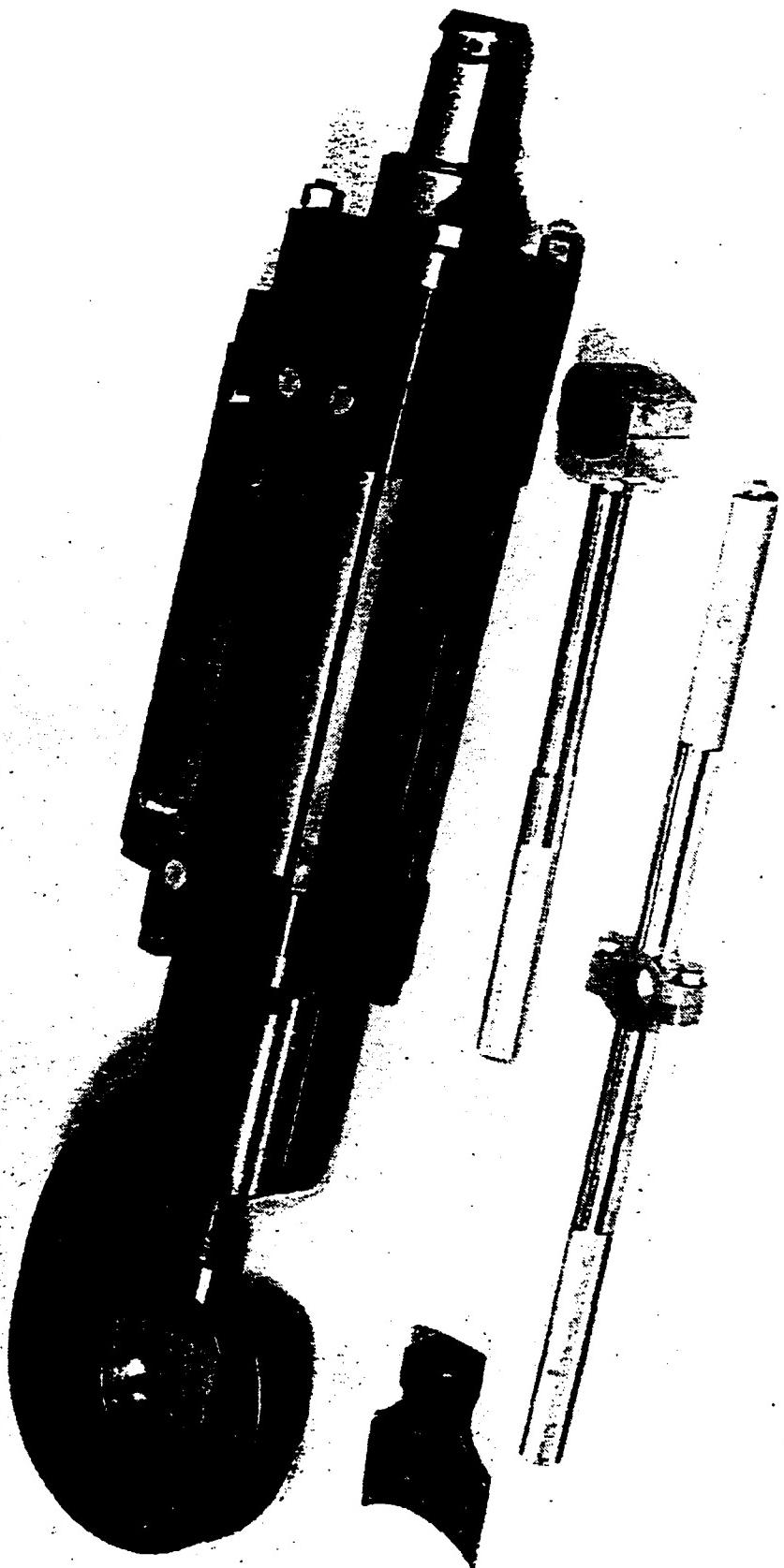
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**Deep Submergence Vehicle (DSV)
Lightweight Cable Cutter
(U.S. Patent 4,463,496)**

Inventors: Ron Reich
Jim Held
Art Munson
Jim Hartley
(619) 553-1913

NOSCO

Dsv Lightweight Cable Cutter



NASC 62

Features

Self-contained

Pressure-compensated hydraulic operations

Operates from 2,000 r/min rotary input

NOSC

Stage of Development

Two lightweight cable cutters have been delivered to, and are in operational use by the Navy

Applications

Deep submergence vehicle operations

NOSC X

**Wideband VHF Antenna
(U.S. Patent 4,201,988)**

**Inventor: Doug Dilley
(619) 553-1411**

**Method and Apparatus for Fabricating
a Wideband Whip Antenna
(U.S. Patent 4,243,992)**

**Inventor: Don Forman
(619) 553-3680**

NOSC

Features

Small size and weight

High efficiency

Greater than one octave bandwidth (30–76 Hz)

Multiple frequency operation

High power capability

Inexpensive construction technique

NOSC

Stage of Development

**Prototype antennas have been built and are
in use by the U.S. Marine Corps**

Applications

Commercial and military vehicles



Other Available Patents

Title	U.S. Patent
Thermally Activated Vapor Etchant for InP	4,671,847
System for Measuring Bioluminescence Flash Kinetics	4,563,331
Deep Submergence Vehicle (DSV) Lightweight Cable Cutter	4,463,496
Methods for Making an Undersea, High Pressure Bulkhead Penetrator for Use with Fiber Optic Cables	4,469,339
Wave-powered Buoy Generator	4,492,875
Apparatus for Measuring the Spatial Scalar Variation of a Magnetic Field with Vector Magnetic Sensors on a Moderately Stable Moving Platform	4,492,923
Switching Mixer	4,492,960
Reproducible Standard for Aligning Fiber Optic Connectors Which Employ Graded Refractive Index Rod Lenses	4,509,827

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Other Available Patents (contd)

Title	U.S. Patent
Semiconductor Laser End-facet Coatings for Use In Solid or Liquid Environments	4,510,607
Retro-elective Alignment Technique for Fiber Optical Connectors	4,545,643
Method of Wavelength Multiplexing in Fused Single-mode Fiber Couplers	4,557,553
Automatic Character Recognition System	4,567,609
Remotely Activated Cable Cutter	4,495,849
Matrix-matrix Multiplication Using an Electro- optical Systolic/Engagement Array Processing Architecture	4,603,398
Real-time Ultrahigh Resolution Image Projection Display Using Laser-addressed Liquid Crystal Light Valves	4,611,245

Other Available Patents (contd)

Title	U.S. Patent
Combination Frangible Nose Cap Electromagnetic Interference Shield	4,593,637
Method of Curing Patches on Contoured Surfaces	4,652,319
Universal Test Board for Serial Data	4,658,209
Collapsible Salvage Drum and Method	4,658,745
Generation of Ohmic Contacts on Indium Phosphide	4,662,063
Hermetic High-pressure Fiber Optic Bulkhead Penetrator	4,682,846
Metal Matrix Composite Piston Head and Method of Fabrication	4,706,550
Single Crystal Thin Films	4,707,217
Portable, Electronically Controlled, Integrated, P.C.B. Rework Station	4,708,278

Other Available Patents (contd)

Title	U.S. Patent
Fabrication of Semiconductor Devices in Recrystallized Semiconductor Films on Electro-optic Substrates	4,649,624
Deep Ocean Wideband Acoustic Baffle	4,488,271
Transmissive and Reflective Liquid Crystal Display	4,315,258
Remote Self-Contained Undersea Monitor	4,480,323
Lithium-6 Coated Wire Mesh Neutron Detector	4,481,421
Transmitting Adaptive Array Antenna	4,492,962
Shielding Apparatus for Microwave Thawing	4,503,307
High-speed Optically Controlled Sampling System	4,546,249
Vector Summation Power Amplifier	4,575,811

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Other Available Patents (contd)

Title	U.S. Patent
Programmable Time Varying Attenuator	4,625,332
Microprocessor-based Programmable Frequency Controller for Frequency Agile Radar Advanced Cube Processor	4,631,541
Concretization of High-level Radioactive Source in Marine Sediment	4,636,358
Intercept Resistant Data Transmission System	4,661,980
Variable Temperature Trap	4,610,169
Constant Rise AGC Circuit	4,574,252
Furnace Transient Anneal Process	4,555,273

Other Available Patents (contd)

Title	U.S. Patent
Programmable time varying attenuator	4,625,332
Microprocessor-based programmable frequency controller for frequency agile radar advanced cube processor	4,631,541
Concretization of high-level radioactive source in marine sediment	4,636,358
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High-speed optically controlled sampling system	4,546,249
Vector summation power amplifier	4,575,811

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NOSC Points of Contact for Patent Licensing

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